

2002

ARTICLES IN REFEREED PROFESSIONAL JOURNALS (39)

Burke, I.C., W.K. Lauenroth, G. Cunfer, J.E. Barrett, **A.R. Mosier**, and P. Lowe. 2002. Nitrogen in the central grasslands region of the United States. BioScience 52:813-823.

Cai, Z. and **A.R. Mosier**. 2002. Restoration of CH₄ oxidation abilities in rice paddy soils after desiccation. Biology and Fertility of Soils (Accepted February, 2002).

Delgado, J.A. 2002. Quantifying the Loss Mechanisms of Nitrogen. J. Soil Water Cons. 57:389-398.

Delgado, J.A. and **R.F. Follett**. 2002. Carbon and Nutrient Cycles. J. Soil Water Cons. 57:455-464.

Delgado, J.A., W. Colon, W. Bausch, D. Wright, D.G. Westfall, M. Dillon, A. Thompson-Johns, M.J. Shaffer, K. Thompson, H.R. Duke, R.F. Follett, and L. Olivieri. 2002. Potential use of innovative tools to increase nitrogen use efficiency and protect environmental quality for temperate and tropical regions. Journal Storm water 3:48-56.

Delgado, J.A., C. Cox, H.V. Es, and W. Reeves. 2002. Nutrient Management in the USA: A Joint Symposium. J. Soil Water Cons. 57:388-389.

Delgado, J.A. and **R.F. Follett**. 2002. Carbon and nutrient cycles. J. Soil & Water Cons. 57:455-464.

Eve, M.D., M. Sperow, K. Paustian, and **R.F. Follett**. 2002. National-scale estimation of changes in soil carbon stocks on agricultural lands. Environ.Poll.116: 431-438.

Eve, M.D., M. Sperow, K. Howerton, K. Paustian, and **R.F. Follett**. 2002. Predicted impact of management changes on soil carbon stocks for each agricultural region of the conterminous U.S. J. of Soil and Water Cons. 57:196-204.

Follett, R.F. and **J.A. Delgado**. 2002. Nitrogen fate and transport in agricultural systems. J. Soil & Water Cons. 57:403-408.

Franzen, D.W., D.H. Hopkins, M.D. Sweeney, M.K. Ulmer, and **A.D. Halvorson**. 2002. Evaluation of soil survey scale for zone management of site-specific nitrogen management. Agron. J. 94:381-389.

Halvorson, A.D. 2002. Nutrient-Water Interactions. Encyclopedia of Soil Science. Marcel Dekker, Inc., New York, NY. pp. 888-890.

Halvorson, A.D., B.J. Wienhold, and A.L. Black. 2002. Tillage, nitrogen, and cropping system effects on soil carbon sequestration. Soil Sci. Soc. Amer. J. 66(3):906-912.



Halvorson, A.D., R.F. Follett, M.E. Bartolo, and F.C. Schweissing. 2002. Nitrogen fertilizer use efficiency by furrow irrigated onion and corn. *Agron. J.* 94(3):442-449.

Halvorson, A.D., J.S. Havlin, and **C.A. Reule**. 2002. Fertilizer phosphorus management options for no-till dryland winter wheat. *Better Crops with Plant Food*. 86(4):4-7.

Halvorson, A.D., C.A. Reule, and G.A. Peterson. 2002. Tillage system and crop rotation effects on dryland crop yields and soil carbon in the Central Great Plains. *Agron. J.* 94:1429-1436.

Halvorson, A.D. 2002. Saline Seep. *Encyclopedia of Water Science*. Marcel Dekker, Inc., New York, NY. (Accepted April 11, 2001, In press)

Hunter, W.J. 2002. Perchlorate is Not a Common Contaminant of Fertilizers. *J. Ag. Crop Sci.* Accepted 7/2/01).

Hunter, W.J. 2002. Bioremediation of chloride or perchlorate contaminated water using permeable barriers containing vegetable oil. *Current Microbiology*. 45:287-292.

Hutchinson, G.L., G.P. Livingston, R.W. Healy, and R.G. Striegl. 2002. Chamber measurement of surface-atmosphere trace gas exchange: Numerical evaluation of dependence on soil, interfacial layer, and source/sink properties. *J. Geophys. Res.* 105:8865-8876.

King, J.Y., A.R. Mosier, D.R. LeCain, D.G. Milchunas, and W.J. Parton. 2002. Changes in above ground plant nitrogen in shortgrass steppe following growth under elevated atmospheric CO₂. *Ecosystems* (accepted Dec. 2002).

Khosla, R., K. Fleming, **J.A. Delgado**, T.M. Shaver, and D.G. Westfall. 2002. Use of site specific management zones to improve nitrogen management for precision agriculture. *J. Soil Water Cons.* 57:513-518.

McCarty, G.W., J.B. Reeves III, V.B. Reeves, **R.F. Follett** and J.M. Kimble. 2002. Mid-Infrared and Near-Infrared Diffuse Reflectance Spectroscopy for Measurement of Carbon in Soils. *Soil Sci. Soc. Amer. J.* 66:640-646.

Meisinger, J.J. and **J.A. Delgado**. 2002. Principles for managing nitrogen leaching. *J. Soil Water Cons.* 57:485-498.

Mosier, A.R., J.W. Doran, and J.R. Freney. 2002. Managing soil denitrification. *J. Soil and Water Cons.* 57:505-513.

Mosier, A.R., J.A. Morgan, **J.Y. King**, D.R. LeCain, and D.G. Milchunas. 2002. Soil-atmosphere exchange of CH₄, CO₂, NO_x and N₂O in the Colorado shortgrass steppe under elevated CO₂. *Plant and Soil* 240:200-211.

Mosier, A.R., J.A. Morgan, **J.Y. King**, D.R. LeCain, and D.G. Milchunas. 2002. Soil-atmosphere exchange of CH₄, CO₂, NO_x and N₂O in the Colorado Shortgrass Steppe under



Elevated CO₂. 7th Scientific Conf. of the Int'l. Global Atmospheric Chemistry Project, Heraklion, Crete Greece, September 18-25-2002.

Mosier, A.R., Wassmann, L. Verchot, **J.Y. King** and C. Palm. 2002. Methane and nitrogen oxide fluxes in tropical agricultural soils: Sources, sinks and mechanisms. Environment, Development and Sustainability (accepted February, 2002).

Mosier, A.R. 2002. Environmental challenges associated with needed increases in global nitrogen fixation. Nutrient Cycling in Agroecosystems (In Press-accepted September, 2001).

Nielsen, D.C., M.F. Vigil, R.L. Anderson, R.A. Bowman, J.G. Benjamin, and **A.D. Halvorson**. 2002. Cropping system influence on planting soil water content and yield of winter wheat. Agron. J. 94:962-967.

Palm, C.A., J.C. Alegre, L. Arevalo, P.K. Mutuo, **A.R. Mosier** and R. Coe. 2002. Nitrous oxide and methane fluxes in six different land use systems in the Peruvian Amazon. Global Biogeochemical Cycles (Accepted March, 2002).

Pendall, E., **J.Y. King**, **A.R. Mosier**, J.A. Morgan, and D.G. Milchunas. 2002. Stable isotope constraints on net ecosystem production under elevated CO₂. Global Biogeochemical Cycles (accepted December, 2002).

Pendall, E., **S.J. Del Grosso**, **J.Y. King**, D.R. LeCain, D.G. Milchunas, J.A. Morgan, **A.R. Mosier**, D.S. Ojima, W.J. Parton, P.P. Tans, and J.W.C. White. 2002. Elevated atmospheric CO₂ effects and soil water feedbacks on soil respiration components in a Colorado grassland. Global biogeochemical cycles (accepted November, 2002).

Phongpan, S. and **A.R. Mosier**. 2002. Impact of organic residue management on nitrogen use efficiency in an annual rice cropping sequence of lowland Central Thailand. Nutrient Cycling in Agroecosystems (Accepted April 22, 2002).

Qian, Y.L. and **R.F. Follett**. 2002. Assessing carbon sequestration in turfgrass soil using long-term soil testing data. Agron. J. 94:930-935.

Reeves III, J. B., G. W. McCarty, T. V. Mimmo, V.B. Reeves, **R.F. Follett**, J. M. Kimble, and G.C. Galletti. 2002. Spectroscopic calibrations for the determination of carbon in soils. International Soil Science Congress (Bangkok, Thailand).

Shaffer, M.J. and **J.A. Delgado**. 2002. Essentials of a National Nitrate Leaching Index Assessment Tool. J. Soil Water Cons. 57:327-335.

Skinner, R.H., J.D. Hanson, **G.L. Hutchinson**, and G.E. Schuman. 2002. Response of C₃ and C₄ grasses to supplemental summer precipitation. J. Range Manage. 55:517-522.

Soltanpur, P. and **J.A. Delgado**. 2002. Profitable and sustainable soil, test-based nutrient management. J. Comm. Soil Sci. Plant Anal. 33:2557-2583 (Keynote paper).



BOOKS AND BOOK CHAPTERS (6)

Delgado, J.A. (Ed.). 2002. Nutrient Management in the USA. Special Issue of Journal Soil Water Conservation, Soil Water Conservation Society, Ankeny, IA Vol. 57, Number 6:327-558.

Hutchinson, G.L. and G.P. Livingston. 2002. Soil-atmosphere gas exchange, pp. 1159- 1182. In Dane, J. H. and Topp, G.C. (eds.) Methods of soil analysis, Part 4, Physical methods. Soil Sci. Soc. Am. Book Series: 5. Madison, WI. 1692 pp.

Kimble, J.M. Lal, R., and **R.F. Follett** (Eds.). 2002. Agricultural Practices and Policies for Carbon Sequestration in Soil. CRC Press. Boca Raton, FL. 552 pp.

Kimble, J.M., L.R. Everett, **R.F. Follett**, and R. Lal. 2002. Carbon sequestration and the integration of science, farming, and policy. pp. 3-11. In J. M. Kimble, R. Lal, and R.F. Follett (eds.) Agricultural Practices and Policies for Carbon Sequestration. CRC Press. Boca Raton, FL. 512 pp.

Kimble, J.M., R. Lal, and **R.F. Follett**. 2002. Agricultural practices and policy options for carbon sequestration: what we know and where we need to go. pp. 495-501. In J. M. Kimble, R. Lal, and R.F. Follett (eds.) Agricultural Practices and Policies for Carbon Sequestration. CRC Press. Boca Raton, FL. 512 pp.

Rochette, P. and **G.L. Hutchinson**. 2002. Measurement of soil respiration *In situ*: Chamber techniques. In Hatfield, J. L. (ed.) Micrometeorological measurements in agricultural systems. ASA, CSSA, and SSSA, Madison, WI. (Accepted 10 May 2002)

RESEARCH BULLETINGS, PROCEEDINGS AND OTHER RESEARCH REPORTS (13)

Bausch, W.C., **J.A. Delgado**, H. Farahani, G. Buchleiter, and K. Diker. 2002. Soil Nitrogen Estimation From Corn Canopy Reflectance and Soil Electrical Conductivity. In Robert, P.C., Rust, R.H. and Larson, W.E. (eds.). Proc. 6th Int'l. Conf. on Precision Agriculture. ASA Madison WI (CD-ROM).

Delgado, J.A. 2002. Quantifying N losses to the environment. ASA Digiscript: CD-ROM, Madison WI.

Delgado, J.A., M. Dillon, R. Sparks, **R.F. Follett**, and A. Thompson-Johns. 2002. ^{15}N -fertilizer recovery and cycling in high altitude irrigated systems. Proc. 19th annual San Luis Valley Potato Grain Conference. pp. 43-46.

Del Grosso, S.J., D.S. Ojima, W.J. Parton, **A.R. Mosier**, and G.A. Peterson. 2002. Regional assessment of net greenhouse gas fluxes from agricultural soils in the U.S. Great Plains under current and improved management Non-CO₂ Greenhouse Gases. Proc. NCGG-3, Van Ham, Baede, Guicherit & Williams-Jacobse, (Eds). Maastricht, Netherlands, 21-23 January 2002. ISBN 90-77017-70-4). Millpress, Rotterdam ISBN 90-77017-70-4.



Del Grosso, S.J., D.S. Ojima, W.J. Parton, and **A.R. Mosier**. 2002. Simulated effects of tillage and timing of N fertilizer application on net greenhouse gas fluxes and N losses for agricultural soils in the Midwestern USA. Non-CO₂ Greenhouse Gases. Proc. NCGG-3, Van Ham, Baede, Guicherit & Williams-Jacobse, (Eds). Maastricht, Netherlands, 21-23 January 2002. ISBN 90-77017-70-4). Millpress, Rotterdam ISBN 90-77017-70-4.

Halvorson, A.D., C.A. Reule, J. Poole, and **R.F. Follett**. 2002. Influence of soil fertility level on carbon sequestration under irrigated corn. Proc. 2002 Fluid Forum, Feb. 17-19, Scottsdale Arizona, Fluid Fertilizer Foundation. 19:245-252.

Halvorson, A.D., W. Bausch, H. Duke, and **C.A. Reule**. 2002. Response of irrigated corn to nitrogen fertility level within two tillage systems. Proc. of 2002 Great Plains Soil Fertility Conference. Kansas State University, Manhattan and Potash and Phosphate Institute, Brookings, SD. 9:132-137.

Halvorson, A.D., F. Schweissing, and **C.A. Reule**. 2002. Nitrogen fertilization of irrigated corn in a high residual soil N environment in the Arkansas River Valley. Proc. of 2002 Great Plains Soil Fertility Conference. Kansas State University, Manhattan and Potash and Phosphate Institute, Brookings, SD. 9:138-142.

Hunter, W.J. 2002. Remediation of Chlorate Contaminated Water with Barriers Containing Soybean Oil. Paper 2H-01. *In* Gavaskar, A.R. and Chen, A.S.C. (eds.). Remediation of Chlorinated and Recalcitrant Compounds - 2002. Proceeding of the Third Int'l. Conf. on Remediation of Chlorinated and Recalcitrant Compounds. Battelle Press. Columbus, OH.

Hunter, W.J. 2002. Creation of Permeable Barriers Containing Innocuous Oils: Laboratory Injection Studies. Paper 2H-42. *In* Gavaskar, A.R. and Chen, A.S.C. (eds.). Remediation of Chlorinated and Recalcitrant Compounds - 2002. Proceeding of the Third Int'l. Conf. on Remediation of Chlorinated and Recalcitrant Compounds. Battelle Press. Columbus, OH.

Kroeze, C. and **A.R. Mosier**. 2002. Progress in source strength estimates of nitrous oxide (N₂O). *In* Non-CO₂ Greenhouse Gases; Proc. NCGG-3, Van Ham, Baede, Guicherit and Williams-Jacobse (Eds.) Maastricht Netherlands, 21-23 January 2002. Millpress, Rotterdam. ISBN 90-77017-70-4.

Bartolo, M.E., O. Doss, **A.D. Halvorson**, **R.F. Follett**, and J. Davis. 2002. Onion Fertility Trial. p. 51-54, In 2001 Vegetable Crop Reports. Technical Report # TR02-8 (August 2002). CAES Arkansas Valley Research Center. Rocky Ford, CO.

Halvorson, A.D., F.C. Schweissing, and **C.A. Reule**. 2002. Nitrogen fertilization of irrigated corn at AVRC. In Colorado Agric. Exp. Sta. Technical Report TR02-8, Colorado State University, Fort Collins, CO. Pages 14-18.